CLAIMS

1. A pagewidth printhead chip that comprises

a substrate that incorporates drive circuitry; and

a plurality of nozzle arrangements that are positioned on the substrate, each nozzle arrangement comprising

a static nozzle chamber structure that is positioned on the substrate to extend from the substrate and that defines part of a nozzle chamber;

an active nozzle chamber structure that defines an ink ejection port and is configured to define a remaining part of the nozzle chamber, the active structure being displaceable with respect to the static structure towards and away from the substrate respectively to reduce and increase a volume of the nozzle chamber so that ink in the nozzle chamber is ejected from the ink ejection port; and

at least two actuators that are connected to the drive circuitry and operatively arranged with respect to the active structure to displace the active structure towards and away from the substrate on receipt of an actuating electrical signal from the drive circuitry, the actuators being configured and connected to the active structure to impart substantially rectilinear movement to the active structure.

2. A pagewidth printhead chip as claimed in claim 1, which is the product of an integrated circuit fabrication technique.

3. A pagewidth printhead chip as claimed in claim 1, in which each active structure defines a roof with the fluid ejection port defined in the roof, and sidewalls that depend from the roof to bound the static structure.

4. A pagewidth printhead chip as claimed in claim 3, in which each static structure defines an ink displacement formation that is spaced from the substrate and faces the roof, the ink displacement structure defining an ink displacement area that is dimensioned to facilitate ejection of ink from the ink ejection port, when the active structure is displaced towards the substrate.

5. A pagewidth printhead chip as claimed in claim 3, in which each nozzle arrangement includes a pair of substantially identical actuators that are connected to respective opposed sides of the roof.

6. A pagewidth printhead chip as claimed in claim 5, in which each actuator is a thermal bend actuator that is anchored to the substrate at one end and is movable with respect to the substrate at an opposed end, and has an actuator arm that bends when differential thermal expansion is set up in the actuator arm on receipt of the actuating electrical signal from the drive circuitry.

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7. A pagewidth printhead chip as claimed in claim 6, in which each nozzle arrangement includes at least two coupling structures, one coupling structure being positioned intermediate each actuator and the active structure and each coupling structure being configured to accommodate both arcuate movement of said opposed end of each actuator and said substantially rectilinear movement of the active structure.

8. A pagewidth printhead chip as claimed in claim 1, in which a plurality of ink inlet channels are defined through the substrate, each ink inlet channel being bounded by one respective static structure so that ink inlet channels open into respective nozzle chambers.

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